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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/545,165	08/11/2005	Kazushige Kojima	KOJIMA3	1534
1444 7590 12/14/2007 BROWDY AND NEIMARK, P.L.L.C. 624 NINTH STREET, NW SUITE 300 WASHINGTON, DC 20001-5303			EXAMINER GARRETT, DAWN L	
			ART UNIT 1794	PAPER NUMBER
			MAIL DATE 12/14/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/545,165

Applicant(s)

KOJIMA ET AL.

Examiner

Dawn Garrett

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8,13,14,16 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 3-5 is/are allowed.
- 6) ☒ Claim(s) 6-8,13,14,16 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 28, 2007 has been entered.
2. The amendment filed October 29, 2007 has been entered. Claim 1 was amended. Claims 2, 9-12, 15, 17, and 19 are canceled. Claims 1, 3-8, 13, 14, 16, and 18 are pending.
3. The rejection of claims 1-7, 10-13, 16, and 18 under 35 U.S.C. 103(a) as being unpatentable over Kobori et al. (US 6,285,039 B1) in view of Satsuki et al. (US 2005/0275341 A1) in further view of Van Slyke et al., Appl. Phys. Lett., 69 (15), (1996), p. 2160-2162 is withdrawn due to the amendment and upon further consideration of the remarks and comparative examples in the instant specification.
4. The rejection of claims 8 and 14 under 35 U.S.C. 103(a) as being unpatentable over Kobori et al. (US 6,285,039 B1) in view of Satsuki et al. (US 2005/0275341 A1) in further view of Van Slyke et al., Appl. Phys. Lett., 69 (15), (1996), p. 2160-2162 and in further view of Inoue et al. (US 5,635,308) is withdrawn.
5. The rejection of claims 1-7, 10-13, 16, and 18 under 35 U.S.C. 103(a) as being unpatentable over Kobori et al. (US 6,285,039 B1) in view of Fujiwara et al. (Journal of

Photopolymer Science and Technology, Vol. 15, No. 2 (2002), p. 237-238) in further view of Van Slyke et al., Appl. Phys. Lett., 69 (15), (1996), p. 2160-2162 is withdrawn due to the amendment and remarks and upon further consideration of the comparative examples in the instant specification.

6. The rejection of claims 8 and 14 under 35 U.S.C. 103(a) as being unpatentable over Kobori et al. (US 6,285,039 B1) in view of Fujiwara et al. (Journal of Photopolymer Science and Technology, Vol. 15, No. 2 (2002), p. 237-238) in further view of Van Slyke et al., Appl. Phys. Lett., 69 (15), (1996), p. 2160-2162 and in further view of Inoue et al. (US 5,635,308) is withdrawn.

Claim Objections

7. Claims 8 and 14 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Both claims 8 and 14 set forth a limitation for the glass transition point range of the hole-transporting and electron-transporting substances in the luminescent material; however, claim 1 already recites the same glass transition range for all substances used in the layer. Accordingly, claims 8 and 14 fail to further limit claim 1.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 6-8, 13-14, 16 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claims 8 and 14 refer to the "luminescent material" of claim 1; however, claim 1 fails to use this precise terminology, which makes the limitations of claims 8 and 14 unclear. It appears claims 8 and 14 should recite "luminescent layer" instead of "luminescent material".
- b. Claims 6, 7, 13, 16 and 18 set forth language about a "ratio" of a substance "against host in said luminescent layer". The claims appear to set forth a percentage rather than a ratio. In addition, it is unclear if the percentage set forth is the percentage present in the total amount of the host material (hole-transporting substance plus electron-transporting substance). The term "against host" is not understood and renders the claim unclear.

Appropriate corrections and/or clarifications are required.

Allowable Subject Matter

10. Claims 1 and 3-5 are allowed. The closest prior art is considered to be Korbori et al. (US 6,285,039 B1) discussed in the prior Office actions. Kobori et al. fails to teach the particular coumarin derivatives set forth in independent claim 1. The examples and comparative examples set forth in the instant specification demonstrate improved half-

life properties when devices are formed with coumarin derivatives of the instant claims having high glass transition points as compared to a coumarin derivative (Coumarin-6) having only one coumarin portion in its skeleton. Furthermore, devices having both a hole-transporting and electron-transporting host material in the luminescent layer demonstrated improvements over using an electron-transporting material alone. Claims 6-8, 13, 14, 16, and 18 would be allowable if rewritten to overcome the rejections under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Response to Arguments

11. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571) 272-1523. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571) 272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dawn Garrett/

Dawn Garrett
Primary Examiner
Art Unit 1794

December 5, 2007